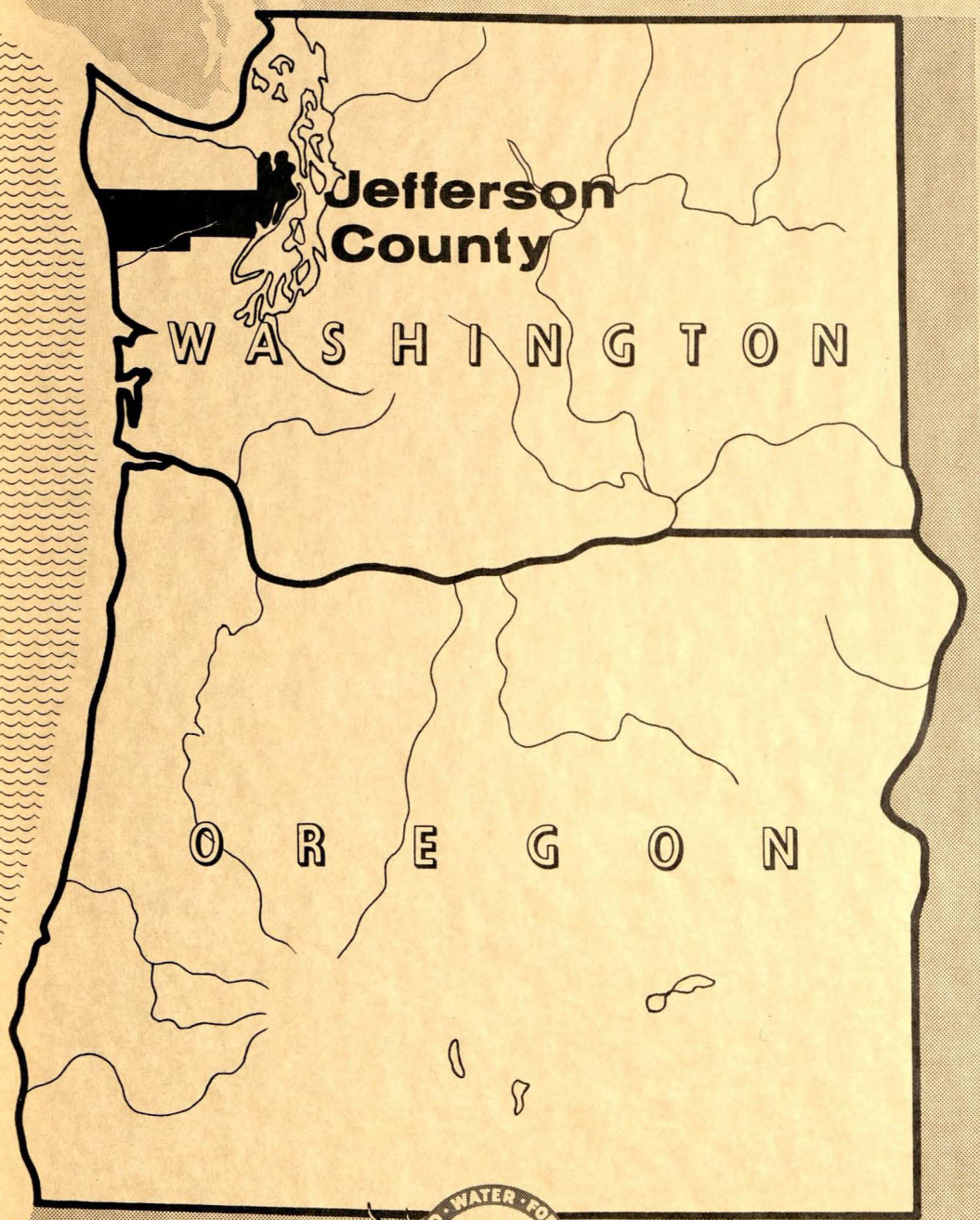
FOREST SURVEY REPORT 144
JUNE 1962

Forest Statistics for



PACIFIC NORTHWEST
FOREST AND RANGE EXPERIMENT STATION
U. S. DEPT. OF AGRICULTURE · FOREST SERVICE

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Forest Survey Report 144
June 1962

FOREST STATISTICS FOR

JEFFERSON COUNTY, WASHINGTON

by

Benjamin Spada

PACIFIC NORTHWEST
FOREST AND RANGE EXPERIMENT STATION
R. W. Cowlin, Director Portland, Oregon

FOREST SERVICE U.S. DEPARTMENT OF AGRICULTURE

PREFACE

This publication summarizes the results of the third inventory of the forests of Jefferson County, Wash., completed in 1960. Previous inventories of Jefferson County were made in 1932 and 1940. The results of these inventories were published as "Forest Statistics for Jefferson County, Washington," March 1934, and "Forest Statistics for Jefferson County, Washington," Forest Survey Report 84, July 1941. Such inventories are a part of the Forest Survey, a nationwide project of the Forest Service authorized by the McSweeney-McNary Forest Research Act of 1928, amended June 25, 1949. The purpose of the Forest Survey is to periodically inventory the extent and condition of forest lands and the volume of timber on them, to ascertain rates of forest growth and depletion, to estimate present consumption of timber products and probable future trends in timber requirements, to analyze and make available survey information needed in the formulation of forest policies and programs, and to make resurveys as necessary to keep the basic information up to date.

The Forest Survey is conducted in the various forest regions of the Nation by the regional Experiment Stations of the Forest Service. In the States of Oregon and Washington, it is an activity of the Pacific Northwest Forest and Range Experiment Station at Portland, Oreg.

The 1960 inventory of Jefferson County was based primarily on sampling techniques which did not include a type map; thus no county forest type map was prepared.

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JEFFERSON COUNTY'S FOREST RESOURCE IN BRIEF

COMMERCIAL FOREST LAND--

Covers 47 percent of the county area or 542,000 acres;
Is 54 percent publicly owned;
Is composed of 74 percent sawtimber stands and 26 percent other stands; and
Is composed of 9 percent hardwood types and 91 percent softwood types.

GROWING STOCK VOLUME--

Amounts to 3,709 million cubic feet;
Is 70 percent publicly owned; and
Is 95 percent softwoods and 5 percent hardwoods.

SAWTIMBER VOLUME--

Totals 23,345 million board feet, International 1/4-inch rule (19,020 million board feet, Scribner rule);
Is 73 percent publicly owned;
Is 98 percent softwoods and 2 percent hardwoods; and
Is 34 percent of the total in trees less than 29 inches in diameter.

NATIONAL FOREST OWNERSHIP--

Controls 23 percent of the total commercial forest area;
Has 24 percent of the total sawtimber area; and
Has 25 percent of the sawtimber volume.

OTHER PUBLIC OWNERSHIP--

Holds 31 percent of the commercial forest area;
Has 40 percent of the sawtimber area; and
Has 48 percent of the sawtimber volume.

FOREST INDUSTRY OWNERSHIP--

Controls 26 percent of the commercial forest area;
Has 24 percent of the sawtimber area; and
Has 20 percent of the sawtimber volume.

FARMER AND MISCELLANEOUS PRIVATE OWNERSHIP--

Holds 20 percent of the commercial forest area;
Has 12 percent of the sawtimber area; and
Has 7 percent of the sawtimber volume.

AVERAGE ANNUAL CUT FOR THE PAST 5 YEARS--

Has been 231 million board feet, International 1/4-inch rule (188 million board feet, Scribner rule); and
Has been 99 percent softwoods.

Table 1.--Area by land classes, Jefferson County, 1960

(In acres)

Land class	Area
Commercial forest	542,000
Unproductive forest	184,000
Productive-reserved forest	285,000
Total forest	1,011,000
Nonforest	1/ 138,000
All land	2/ 1,149,000

1/ Includes 688 acres of water according to Survey standards of area classification but defined by Bureau of the Census as land.

2/ From U.S. Bureau of the Census, Land and Water Area of the United States, 1950.

Table 2.--Area of commercial forest land, by stand-size and ownership classes, Jefferson County, 1960

(In acres)

Stand-size class	All ownerships	National Forest[1/]	Other public	Forest industry	Farmer and miscellaneous private
Sawtimber stands:					
Large	256,000	61,000	130,000	51,000	14,000
Small	145,000	34,000	31,000	45,000	35,000
Total	401,000	95,000	161,000	96,000	49,000
Poletimber stands	69,000	12,000	2,000	28,000	27,000
Sapling and seedling stands	68,000	15,000	8,000	15,000	30,000
Nonstocked areas	4,000	2,000	--	2,000	--
All classes	542,000	124,000	171,000	141,000	106,000

[1/] Data for National Forest based on National Forest working circle inventories, 1952-53.

Table 3.--Area of commercial forest land, by stocking classes of growing-stock trees and by stand-size classes, Jefferson County, 1960

(In acres)

Stocking class	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Nonstocked stands
70 percent or more	493,000	393,000	65,000	35,000	(1/)
40 to 70 percent	32,000	8,000	3,000	21,000	(1/)
10 to 40 percent	13,000	--	1,000	12,000	(1/)
Less than 10 percent	4,000	(1/)	(1/)	(1/)	4,000
All classes	542,000	401,000	69,000	68,000	4,000

1/ Not applicable.

Table 4.--Area of commercial forest land, by forest types and ownership classes, Jefferson County, 1960

(In acres)

Type	All ownerships	Public ownerships	Private ownerships
Douglas-fir	158,000	73,000	85,000
Western hemlock	250,000	155,000	95,000
Pacific silver fir	45,000	42,000	3,000
Grand fir	2,000	--	2,000
Western redcedar	33,000	12,000	21,000
Sitka spruce	1,000	1,000	--
Red alder	46,000	10,000	36,000
Bigleaf maple	3,000	1,000	2,000
Nonstocked	4,000	1,000	3,000
All types	542,000	295,000	247,000

Table 5.--Area of noncommercial forest land, by forest types, Jefferson County, 1960

(In acres)

Type	All areas	Productive-reserved areas	Unproductive areas
Douglas-fir	60,000	60,000	--
Hemlock—Sitka spruce	141,000	141,000	--
Fir—spruce	79,000	79,000	--
Hardwood	4,000	4,000	--
Nonstocked	1,000	1,000	--
Noncommercial, rocky	43,000	--	43,000
Subalpine	141,000	--	141,000
All types	469,000	285,000	184,000

Table 6.--Volume of timber on commercial forest land, by class of timber and by softwoods and hardwoods, Jefferson County, 1960

Class of timber	All species	Softwoods	Hardwoods
	Million cubic feet		
Sawtimber trees:			
Saw-log portion	3,129	3,056	73
Upper-stem portion	236	230	6
Total	3,365	3,286	79
Poletimber trees	344	254	90
All growing-stock trees	3,709	3,540	169
Sound cull trees:			
Sawtimber-size	2	1	1
Poletimber-size	10	3	7
Total	12	4	8
Rotten cull trees:			
Sawtimber-size	7	7	--
Poletimber-size	--	--	--
Total	7	7	--
Salvable dead trees:			
Sawtimber-size	105	103	2
Poletimber-size	--	--	--
Total	105	103	2
Total, all timber	3,833	3,654	179

Table 7.--Volume of growing stock and sawtimber on commercial forest land, by ownership classes and by softwoods and hardwoods, Jefferson County, 1960

Timber and ownership class	All species	Softwoods	Hardwoods
	Million cu. ft.	Million cu. ft.	Million cu. ft.
Growing stock:			
National Forest[1/]	874	874	--
Other public	1,709	1,663	46
Forest industry	814	741	73
Farmer and miscellaneous private	312	262	50
All ownerships	3,709	3,540	169
	Million bd. ft.	Million bd. ft.	Million bd. ft.
Sawtimber (International ¼-inch rule):			
National Forest[1/]	5,862	5,862	--
Other public	11,287	11,142	145
Forest industry	4,566	4,391	175
Farmer and miscellaneous private	1,630	1,530	100
All ownerships	23,345	22,925	420
Sawtimber (Scribner rule):			
National Forest[1/]	4,747	4,747	--
Other public	9,186	9,046	140
Forest industry	3,738	3,570	168
Farmer and miscellaneous private	1,349	1,252	97
All ownerships	19,020	18,615	405

[1/] Data for National Forest based on National Forest working circle inventories, 1952-53.

Table 8.--Volume of growing stock on commercial forest land, by species and diameter classes, Jefferson County, 1960

Species	Diameter class (inches at breast height)										
	All classes	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-28.9	29.0-38.9	39.0 and larger
	Million cubic feet										
Softwoods:											
Douglas-fir	492	17	28	34	29	26	24	22	100	79	133
Western white pine	10	--	1	--	--	--	1	--	7	--	1
Grand fir	10	--	1	1	--	1	1	1	--	2	3
Pacific silver fir	781	7	12	13	21	19	24	18	164	264	239
Sitka spruce	49	1	--	--	1	1	2	2	3	4	35
Western hemlock	1,872	21	43	55	63	78	73	87	428	516	508
Alaska-cedar	4	--	--	--	--	--	--	--	3	1	--
Western redcedar	322	7	7	5	7	6	5	4	46	39	196
Total	3,540	53	92	108	121	131	130	134	751	905	1,115
Hardwoods:											
Red alder	145	19	32	28	23	20	12	4	7	--	--
Bigleaf maple	22	2	3	4	3	2	2	3	3	--	--
Pacific madrone	2	1	1	--	--	--	--	--	--	--	--
Total	169	22	36	32	26	22	14	7	10	--	--
All species	3,709	75	128	140	147	153	144	141	761	905	1,115

Table 9.--Volume of sawtimber on commercial forest land, by species and diameter classes, Jefferson County, 1960 (International ¼-inch rule)

Species	All classes	Diameter class (inches at breast height) 11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-28.9	29.0-38.9	39.0 and larger
	Million board feet							
Softwoods:								
Douglas-fir	2,829	125	134	136	137	675	573	1,049
Western white pine	66	2	2	4	--	48	--	10
Grand fir	48	2	3	3	5	--	15	20
Pacific silver fir	5,144	81	86	120	100	1,038	1,874	1,845
Sitka spruce	433	4	3	8	10	23	36	349
Western hemlock	12,383	256	369	396	505	2,873	3,876	4,108
Alaska-cedar	26	--	1	1	2	20	2	--
Western redcedar	1,996	17	24	24	18	263	256	1,394
Total	22,925	487	622	692	777	4,940	6,632	8,775
Hardwoods:								
Red alder	343	102	103	66	25	47	--	--
Bigleaf maple	76	16	9	11	17	23	--	--
Pacific madrone	1	1	--	--	--	--	--	--
Total	420	119	112	77	42	70	--	--
All species	23,345	606	734	769	819	5,010	6,632	8,775

Table 10.--Volume of sawtimber on commercial forest land, by species and diameter classes, Jefferson County, 1960 (Scribner rule)

Species	Diameter class (inches at breast height)							
	All classes	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-28.9	29.0-38.9	39.0 and larger
	Million board feet							
Softwoods:								
Douglas-fir	2,297	103	113	116	116	556	462	831
Western white pine	54	1	2	4	--	39	--	8
Grand fir	40	2	3	3	4	--	12	16
Pacific silver fir	4,201	68	75	104	86	868	1,529	1,471
Sitka spruce	349	4	2	5	9	19	30	280
Western hemlock	10,086	213	313	335	426	2,376	3,144	3,279
Alaska-cedar	22	--	1	1	1	17	2	--
Western redcedar	1,566	14	20	20	15	212	202	1,083
Total	18,615	405	529	588	657	4,087	5,381	6,968
Hardwoods:								
Red alder	330	97	98	64	25	46	--	--
Bigleaf maple	74	15	8	11	17	23	--	--
Pacific madrone	1	1	--	--	--	--	--	--
Total	405	113	106	75	42	69	--	--
All species	19,020	518	635	663	699	4,156	5,381	6,968

Table 11.--Volume of salvable dead sawtimber-size trees on commercial forest land, by softwoods and hardwoods, Jefferson County, 1960

Species group	Volume	
	International ¼-inch rule	Scribner rule
	Million board feet	
Softwoods	862	697
Hardwoods	8	8
All species	870	705

Table 12.--Annual mortality of growing stock and sawtimber on commercial forest land, by ownership classes and by softwoods and hardwoods, Jefferson County, 1960

Ownership class	Growing stock			Sawtimber (International 1/4-inch rule)			Sawtimber (Scribner rule)		
	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods	All species	Softwoods	Hardwoods
	--- Million cu. ft. ---			--- Million bd. ft. ---			--- Million bd. ft. ---		
National Forest	8	8	--	41	41	--	--	33	33
Other public	12	12	--	83	83	--	--	68	68
Forest industry	5	4	1	31	30	1	1	25	24
Farmer and miscellaneous private	2	1	1	5	4	1	1	4	3
All ownerships	27	25	2	160	158	2	2	130	128

Table 13.--Number of growing-stock trees on commercial forest land, by diameter classes and by softwoods and hardwoods, Jefferson County, 1960

Diameter class (inches d.b.h.)	All species	Softwoods	Hardwoods
5.0 - 6.9	22,780,000	18,361,000	4,419,000
7.0 - 8.9	16,170,000	12,341,000	3,829,000
9.0 - 10.9	9,752,000	7,578,000	2,174,000
11.0 - 12.9	6,479,000	5,317,000	1,162,000
13.0 - 14.9	4,622,000	3,904,000	718,000
15.0 - 16.9	3,036,000	2,693,000	343,000
17.0 - 18.9	2,258,000	2,118,000	140,000
19.0 - 28.9	6,724,000	6,603,000	121,000
29.0 - 38.9	3,613,000	3,613,000	--
39.0 and larger	2,385,000	2,385,000	--
All classes	77,819,000	64,913,000	12,906,000

Table 14.--Number of cull and salvable dead trees on commercial forest land, by diameter groups and by softwoods and hardwoods, Jefferson County, 1960

Diameter class (inches d.b.h.)	Cull trees	Salvable dead trees
Softwoods:		
5.0 - 10.9	703,000	--
11.0 - 18.9	180,000	342,000
19.0 and larger	339,000	484,000
Total	1,222,000	826,000
Hardwoods:		
5.0 - 10.9	1,375,000	--
11.0 - 18.9	52,000	64,000
19.0 and larger	12,000	6,000
Total	1,439,000	70,000
All species	2,661,000	896,000

Table 15.--Timber harvest by ownership class, Jefferson County, 1950-60 (Scribner rule)

Year[1/]	Private	State	National Forest	Other public	Total
	Thousand board feet				
1950	99,101		14,500	--	113,601
1951	144,033		21,000	--	165,033
1952	127,462		41,500	7,965	176,927
1953	48,813		40,200	4,465	93,478
1954	61,372		40,000	6,707	108,079
1955	93,884	69,095	46,998	6,116	216,093
1956	101,200	47,140	41,700	2,067	192,107
1957	86,691	37,511	55,660	1,491	181,353
1958	63,669	32,114	54,795	13,306	163,884
1959	122,446	32,150	68,255	52	222,903
1960	94,689	51,481	61,289	8,434	215,893

[1/] For the years 1950-54, data for private and State ownerships were not separated.

ACCURACY OF THE 1960 REINVENTORY DATA

Forest Area and Timber Volume

Estimates of forest area and timber volume for the Quilcene and Quinault Working Circles, administered by the Olympic National Forest, were obtained from the most recent working circle inventory. The remainder of Jefferson County was sampled for land-use class, forest type, and timber volume by Forest Survey. Sampling errors were calculated for only the major items as shown in table 16, using data from both sources.

Table 16 implies that the values which would result from a 100-percent sample lie within the ranges indicated for the specified probabilities.

Table 16.--Sampling error of estimates of forest area and timber volume

Item	Estimated total	Sampling error in percent	
		Odds, 2 out of 3	Odds, 19 out of 20
Commercial forest land	542,000 acres	±0.9	±1.7
Noncommercial forest land	469,000 acres	±.5	±1.0
Volume (Scribner)	19,020 million board feet	±6.8	±13.3
Volume	3,709 million cubic feet	±6.2	±12.2

Sampling errors for estimates other than total area or total volume were not calculated. However, sampling errors for these can be roughly approximated by using figure 1, page 18.

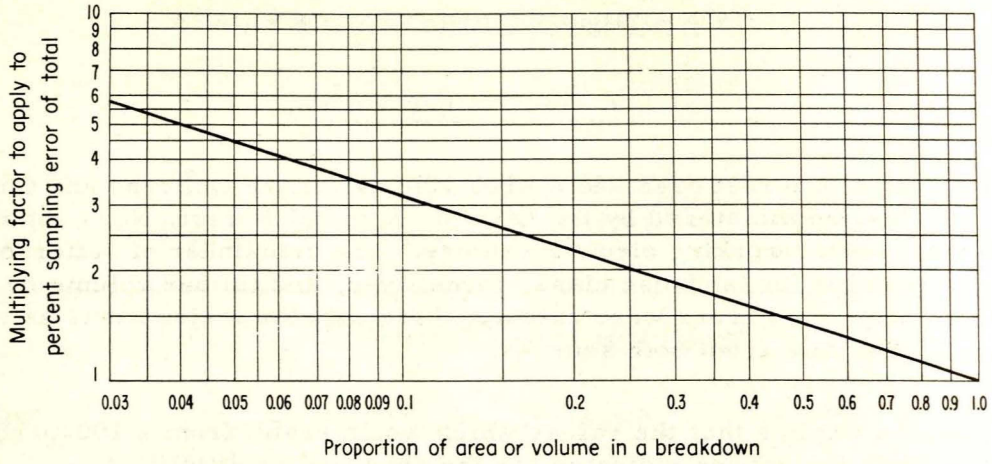

Figure 1.--Ratio of sampling error of an area or volume breakdown to sampling error of total area or volume.

For example, assume that the sampling error reported for a total is ±5 percent, and an estimate of the sampling error for an item which is only 0.25 of this total is desired. Reading from figure 1, the multiplying factor for a proportion of 0.25 is 2. The estimated sampling error for the item is then 2 times ±5 percent, the sampling error of the total, or ±10 percent.

DIFFERENCES IN RESULTS OF INVENTORIES

Some of the differences between the forest-area and timber-volume statistics from the first and second reinventories are due to physical change, such as cutting of stands, restocking of deforested areas, and growth of stands into the next larger size class. Some are due to variations in the procedures used to interpret and classify forest conditions, to variations in standards of utilization, to changes in Forest Survey standards and definitions, and to areas excluded from the second reinventory because of the increase in reserved area between inventories. These variations make it difficult to draw meaningful conclusions from comparison of the statistics of the two inventories; however, certain general facts concerning Jefferson County's present forest condition appear evident.

For one, the area of commercial forest land has decreased by about 37,000 acres, principally due to the increase in reserved area. Also, even considering the differences in standards of the two inventories, it appears there has been a real increase in the hardwood sawtimber volume between inventories. It cannot be said, however, that there has been an overall volume increase between inventories; rather, that all species now receive the same consideration and the current estimate of volume based on this is higher than the previous estimate.

Table 17.--Comparison of forest-area statistics for Jefferson County, first and second reinventories

(In acres)

Land-use class	1940	1960
Commercial forest	579,000	542,000
Noncommercial forest:		
Productive-reserved	255,000	285,000
Unproductive	186,000	184,000
Total noncommercial forest	441,000	469,000
Total forest	1,020,000	1,011,000
Nonforest	128,000	138,000
All land	1,148,000	1,149,000

Table 18.--Comparison of timber-volume statistics for Jefferson County, first and second reinventories

(In million board feet, Scribner rule)

Species	1940	1960
Softwoods:		
Douglas-fir	1,435	2,297
Pacific silver fir	3,576	4,201
Sitka spruce	1,085	349
Western hemlock	8,042	10,086
Western redcedar	1,973	1,566
Other	17	116
Total	16,128	18,615
Hardwoods:		
Red alder	45	330
Other	16	75
Total	61	405
All species	16,189	19,020

FOREST SURVEY PROCEDURE

Procedures used in the second reinventory of Jefferson County were materially different from those used in the previous reinventory.

For the area in Jefferson County other than National Forest, Forest Survey made use of a double sampling procedure. The basic sample consisted of field plots located on a systematic grid. In the eastern portion of the county this grid was 2.4 miles square; for the western portion, 3.4 miles square. The field plots were supplemented by a systematic grid of photo plots. All the photo plots and the field plot locations were examined on aerial photographs and classified into one of three land-use classes: nonforest, noncommercial forest, or commercial forest land.

The field plots consisting of a cluster of three 1/5-acre circular subplots spaced at 6-chain intervals were located, established, and measured in the field. Those plots provided a check on the accuracy of the photo interpretation of land-use class and were combined with the photo plots to provide an adjusted estimate of the proportion of area by land-use classes. The field plots also provided data on ownership, forest type, stocking class, etc., for use in subdividing the adjusted gross commercial forest land area into area by ownership class, forest type, stand-size class, and stocking class.

Tree measurement data obtained on the field plots expanded by the total adjusted acreage of commercial forest land provided estimates of volume and mortality by species and size class as well as by ownership.

Data for the National Forest area was obtained from the most recent National Forest working circle inventories.

DEFINITION OF TERMS

Land Area

Total Land Area

Includes dry land and unmeandered water surfaces.

Forest Land Area

Land at least 10 percent stocked by trees of any size, or formerly having such tree cover, and not currently developed for nonforest use. Minimum area of forest land recognized in reinventory was 10 acres where type maps were used, and 1 acre where sampling procedures were used.

Nonforest Land Area

Land that does not qualify as forest land. Minimum area recognized in the reinventory of the counties was 10 acres where type maps were used and 1 acre where sampling procedures were used.

Forest Land Classes

Commercial Forest Land Area

Forest land which is producing or capable of producing industrial wood and not withdrawn from timber utilization.

Noncommercial Forest Land Area

Unproductive forest land incapable of yielding crops of industrial wood because of adverse site conditions, and productive public forest land withdrawn from commercial timber use through statute or administrative regulation.

Types

Commercial Forest Land Type

Forest land is typed on the basis of the predominant species, as indicated by cubic volume for sawtimber and poletimber stands and number of trees for sapling and seedling stands, or on the basis of forest condition, such as nonstocked cutover or burned-over land. Where none of the indicated species comprise 50 percent or more of a given stand, the stand is classified on the basis of plurality of cubic volume or number of trees. In classifying forest land by type, the minimum area recognized is 1 acre.

Noncommercial Forest Land Types

Productive-reserved. Public forest land withdrawn from timber utilization through statute, ordinance, or administrative order but which otherwise qualifies as commercial forest land. Types designated the same as for commercial forest land.

Unproductive. Forest land incapable of yielding crops of industrial wood products (usually sawtimber) because of adverse site conditions.

Subalpine. Forest stands at the upper elevational limits of tree growth.

Noncommercial rocky. Areas within the commercial forest zone but so steep and rocky that they are incapable of producing usable wood products.

Nonforest Land Types

Vegetative. Cultivated land, stump pasture, grass, or brush on nonforest land.

Nonvegetative. Includes barrens and towns.

Unmeandered water. Includes unmeandered streams and lakes, and tideflats.

Tree Classes

Sawtimber Tree

Tree of commercial species, 11.0 inches d.b.h. and larger, that contains at least one 16-foot coniferous saw log or one 8-foot hardwood saw log to a variable top diameter never less than 8 inches inside the bark. Also, 25 percent or more of the gross board-foot volume must be free from rot or defect.

Poletimber Tree

Tree of commercial species, 5.0 to 10.9 inches d.b.h., in which 25 percent or more of the gross cubic-foot volume is free from rot and defect.

Sapling and Seedling Trees

Live trees of commercial species, less than 5.0 inches d.b.h., and of good form and vigor.

Cull Tree

Live tree of sawtimber or poletimber size that is unmerchantable for saw logs, now or prospectively, because of defect, rot, or species.

Sound cull tree. Live tree of sawtimber or poletimber size that contains 25 percent or more of sound volume but will not make at least one merchantable saw log, now or prospectively, because of roughness, poor form, or species.

Rotten cull tree. Live tree of sawtimber or poletimber size in which less than 25 percent of the total volume is sound.

Mortality Tree

Tree which has died from natural causes and which was not a cull tree at the time of death.

Salvable Dead Tree

Standing or down dead tree that contains 25 percent or more of sound volume and at least one merchantable 16-foot coniferous or 8-foot hardwood saw log.

Stand-Size Classes

Sawtimber Stand

Stand of sawtimber trees having a minimum per-acre net volume of 1,500 board feet (International 1/4-inch rule).

Large sawtimber stand. Stand in which the majority of the volume is in trees 21.0 inches d.b.h. and larger.

Small sawtimber stand. Stand in which the majority of the volume is in trees from 11.0 to 20.9 inches d.b.h.

Poletimber Stand

Stand failing to meet sawtimber stand specifications but at least 10 percent stocked with poletimber and larger (5.0 inches d.b.h. and larger) trees and with at least half the minimum stocking in poletimber trees.

Sapling and Seedling Stand

Stand not qualifying as either a sawtimber or poletimber stand but at least 10 percent stocked with trees of commercial species and with at least half the minimum stocking in sapling and seedling trees.

Nonstocked Area

An area less than 10 percent stocked with present or potential growing-stock trees.

Stocking

Stocking is the extent to which growing space is effectively utilized by present or potential growing-stock trees of commercial species. "Degree of stocking" is synonymous with "percentage of growing space occupied" and means the ratio of actual stocking to full stocking for comparable sites and stands. Stocking may be measured in terms of number of trees, volume, basal area, cover canopy, or other criterion or combination of criteria.

Well-Stocked Stand

A stand that is 70 percent or more stocked with present or potential growing-stock trees.

Medium-Stocked Stand

A stand that is 40 to 69 percent stocked with present or potential growing-stock trees.

Poorly Stocked Stand

A stand that is 10 to 39 percent stocked with present or potential growing-stock trees.

Nonstocked Area

An area less than 10 percent stocked with present or potential growing-stock trees.

Timber Volume

Live Sawtimber Volume

Net volume in board feet of live sawtimber trees of commercial species:

Scribner rule. The common board-foot log rule used in determining volume of sawtimber in the Pacific Northwest.

International 1/4-inch rule. The standard board-foot log rule adopted nationally by the Forest Service for the presentation of Forest Survey volume statistics.

Growing Stock

Net volume in cubic feet of live sawtimber trees and live poletimber trees from stump to a minimum 4.0-inch top (of central stem) outside bark.

All-Timber Volume

Net volume in cubic feet of live and salvable dead sawtimber trees and poletimber trees of commercial species, and cull trees of all species from stump to a minimum 4.0-inch top outside bark.

Ownership Classes

National Forest Lands

Federal lands which have been designated by Executive order or statute as National Forests or purchase units, and other lands under the administration of the Forest Service, including experimental areas and Bankhead-Jones title III lands.

Other Federal Lands

Federal lands other than National Forests, including lands administered by the Bureau of Land Management, Bureau of Indian Affairs, and miscellaneous Federal agencies.

State, County, and Municipal Lands

Lands owned by States, counties, and local public agencies, or lands leased by these governmental units for more than 50 years.

Forest Industry Lands

Lands owned by companies or individuals operating wood-using plants.

Farmer-Owned Lands

Lands owned by operators of farms.

Miscellaneous Private Lands

Privately owned lands other than forest industry or farmer-owned lands.

TREE SPECIES

Tree species commonly found in Jefferson County include:

Softwoods:
- Alaska-cedar (Chamaecyparis nootkatensis)
- Douglas-fir (Pseudotsuga menziesii)
- Grand fir (Abies grandis)
- Pacific silver fir (Abies amabilis)
- Sitka spruce (Picea sitchensis)
- Western hemlock (Tsuga heterophylla)
- Western redcedar (Thuja plicata)
- Western white pine (Pinus monticola)

Hardwoods:
- Bigleaf maple (Acer macrophyllum)
- Pacific madrone (Arbutus menziesii)
- Red alder (Alnus rubra)

RECENT FOREST SURVEY REPORTS

Number	Title	Date
143	Forest Statistics for King County, Washington	June 1962
142	Forest Statistics for Island and Kitsap Counties, Washington, 1959; San Juan County, Washington, 1960	May 1962
141	Forest Statistics for Pierce County, Washington	May 1962
140	1960 Washington Log Production	March 1962
139	Forest Statistics for Okanogan County, Washington	March 1962
138	1960 Oregon Log Production	January 1962
137	Forest Statistics for Grant County, Oregon	November 1960
136	Forest Statistics for Southeast Washington	July 1960
135	Forest Statistics for Umatilla and Union Counties, Oregon	April 1960
134	Forest Statistics for Wallowa County, Oregon	April 1960
133	Forest Statistics for Skagit and Whatcom Counties, Washington	September 1959
132	Forest Statistics for Baker and Malheur Counties, Oregon	October 1958

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